

CLERIDÆ.

Callimerus prasinatus.

BOSTRICHIDÆ.

Apate carinipennis.
— niponensis.

TENEBRIONIDÆ.

Gnesis helopioides, *Pasc.*
Helops? araneiformis, *All.*
Plesiophthalmus brevipennis.

LAGRIDÆ.

Lagria notabilis.
Macrolagria rugipennis.

CURCULIONIDÆ.

Balaninus dentipes, *Roel.* 1874.
Hilgendorfi, *Har.* 1878.

CHRYSOMELIDÆ.

Hispa bigoniæ.

COCCINELLIDÆ.

Amida tricolor, *Har.*

XLVII.—On Two new Species of Amphipoda Gammarina.
By ALFRED O. WALKER.

[Plate XVI.]

Fam. Phoxocephalidæ, G. O. Sars.

Phoxocephalus pectinatus, sp. n. (Pl. XVI. figs. 1–6.)

Epimeres of the peræon rather deeper than their segments; third pleon-segment with the lower margin straight, the hinder slightly convex, and the hinder angle with the point rounded.

Head with the hood slightly curved downwards; eyes round, dark, and large, especially in the male.

Upper antennæ with the first joint longer than the two next, its upper margin produced and the lower furred in the male; flagellum 4-jointed, terminated in the male by a stiff seta as long as the whole antenna; accessory appendage 4-jointed, reaching nearly to the third joint of the flagellum.

Lower antennæ in the male as in *P. Holbölli*, in the female with the second joint of the peduncle nearly as long as the first and third together; flagellum 4-jointed, as long as the second joint of the peduncle.

First gnathopoda rather smaller than the second; epimeres distally expanded; propodos distally contracted; second gnathopoda with the epimeres rounded-oblong; margins of propodos parallel; in both pair the propodos is almost as long as the four preceding joints, the second, third, and fourth joints being very short.

First and second peræopoda much as in *P. Holbölli*, but with the dactylus about three fourths of the length of the propodos.

Third and fourth peræopoda as in *P. Holbölli*, except that the latter is rather longer.

Last peræopoda with three shallow teeth on the hind margin of the first joint; second and third joints in the female with long plumose setæ, remaining joints gradually decreasing in length. In the male the fourth joint has four curved and blunt spines in an equidistant comb-like row on the distal half of the anterior margin; the third joint has no plumose setæ.

Uropoda and telson nearly as in *P. Holbölli*, but there are no spines on the longer ramus of the third uropoda.

Length 3 millim.

This species may be at once distinguished from *Phoxocephalus Holbölli*, *Leptophoxus falcatus*, and the genus *Harpinia* by the conspicuous eyes, while the shortness of the first four joints and the form of the hand in the gnathopods, as also the characters of the last pair of peræopoda, distinguishes it from *Paraphoxus oculatus* and *Phoxocephalus Fultoni*. A male and female were dredged by me off St. Peter's Port, Guernsey, in 7 fathoms, on a bottom of coarse gravel, clinkers, and broken shells, on April 4, 1892. I have also received a male from Mr. J. T. Calman, University College, Dundee, who informs me that it was found with a few others among a number of male *P. Fultoni*, Scott, received from Mr. D. Robertson, of Cumbræ, some years ago.

Fam. Pardaliscidæ, Boeck.

HALICOIDES, gen. nov.

Head with a rostrum equal to half the entire head; eyes obsolete.

Upper antennæ with no accessory appendage at the base of the flagellum, but with a small one at the base of the last (third) joint of the peduncle.

Mandibles nearly as in *Halice*, but with the last joint of the palp about two thirds the length of the second joint and more slender.

Gnathopods simple.

First and second peræopods with the third and fourth joints expanded.

Remaining characters as in *Halice*.

Halicoides anomala, sp. n. (♂). (Pl. XVI. figs. 7-18.)

Epimeres of peræon small; first three pleon-segments with a small tooth at the hinder angle, fourth and fifth injured, but with no appearance of dorsal teeth.

Head longer than the first two body-segments; eyes indicated by a clear almost circular space on the top of the head.

Upper antennæ with the first joint very large, expanding distally, and completely filling the space between the rostrum and the anterior margin of the head, exceeding in length the next two joints, which are less than half as wide; the distal margin of the second joint has a sinus on the upperside, from which a scale-like appendage reaches to the end of the upper margin of the third joint, which is much shorter than the lower margin. First joint of flagellum as long as the last two of the peduncle, furred, and provided with long setæ on the upperside; next eight or nine joints very short, setose, tapering gradually into longer and thinner joints, about twenty-eight in all.

Lower antennæ:—Penultimate joint of peduncle reaching to the end of the first joint of the flagellum of the upper antennæ, constricted at the proximal end; last joint longer than the preceding, both with setules along the upper margin; flagellum very slender, with the third joint longer than the preceding and succeeding joints, about twenty-eight in all.

First gnathopod:—First joint thicker than any of the following, about as long as the next three; carpus rather more than half as long as the propodos, which tapers gradually to the base of the dactylus, and has three setæ and six setules on the lower margin; the dactylus is expanded at the base, not deflexed, and fully half as long as the propodos. Epimere subtriangular.

Second gnathopod:—Like the first in general form, but the lower margins of the carpus and propodos are furred and densely clothed with setæ, which lengthen distally; many of those on the carpus are greatly curved. Epimere rounded-oblong.

First and second peræopoda:—First joint as long as the third and fourth together, third obcordate, the distal end as wide as the shorter diameter of the broadly oval fourth joint; fifth joint as long as, but much narrower than the fourth; dactylus about two thirds the length of the fifth joint; hind margins of third, fourth, and fifth joints fringed with long setæ, which are most numerous on the fourth.

Third peræopoda:—First joint twice as wide and not so long as the third, which is about equal to the fourth and fifth, but twice as wide. Dactylus more than half as long as the propodos.

Fourth and fifth peræopoda subequal, of the same form as the third, but much longer.

Branchial vesicles and pleopoda large.

Uropoda injured, the first with peduncles as long as the rami, which are narrow, equal, and spinous; the second shorter than the first, with subfoliaceous (?) rami; the third foliaceous and probably setose, the inner ramus rather shorter than the outer, which is coarsely serrate on the inner side and is terminated by a short strong spine. The peduncle is short, widening distally, with a median and terminal spine.

Telson longer than the peduncle of the last uropoda, cleft to the base, with a notch at the tip of each division.

Length 7 millim.

A single male specimen was found in a very interesting collection of Crustacea made by Mr. R. L. Ascroft in the steam trawler 'Britannic,' off the Isle de Yen, in the north of the Bay of Biscay, the depth being 17 to 32 fathoms, bottom sand and mud. This species approaches the genus *Halice*, Boeck, very closely in general form, structure of the mouth-organs, antennæ (with the exception of the accessory appendage), gnathopoda, last three pair of peræopoda, uropoda, and telson; but it differs from that genus in having no accessory appendage at the base of the first joint of the flagellum of the upper antennæ, and from every known Amphipod, so far as I am aware, in having a small but distinct scale-like accessory appendage at the base of the last (third) joint of the peduncle. Both the upper antennæ are exactly alike in this respect. The first and second pairs of peræopoda resemble those of the genus *Synopia*, Dana, in the dilated third and fourth joints, and thus connect this genus with the Pardaliscidæ in this respect, just as *Synopioides*, Stebbing, does in the shape of the head. There remains, therefore, nothing to justify Bovallius's establishment of the subtribe of Amphipoda Synopidea,—Claus, Stebbing, and G. O. Sars having already pointed out the relationship of the titular genus to the Gammarina, and the remaining genera having been referred to other families, viz. *Trischizostoma* to the Lysianassidæ and *Hyperlopsis* to the Hyperiidea.

EXPLANATION OF PLATE XVI.

- Figs. 1-6. Phoxocephalus pectinatus.* 1. Upper antenna, ♂. 2. Lower antenna, ♀. 3. First gnathopod, ♀. 4. Second gnathopod, ♀. 5. Last peræopod, ♀. 6. Last peræopod, ♂.
- Figs. 7-18. Halicoides anomala.* 7. Head. 8. Peduncle and first joint of flagellum of upper antenna. 9. First gnathopod. 10. Second gnathopod. 11. First peræopod. 12. Third peræopod. 13. Fifth peræopod. 14. Telson and last uropod. 15. Mandibles. 16. First maxilla. 17. Second maxilla. 18. Maxillipede.

Figs. 1-6, 8, and 15-18 are drawn with a $\frac{1}{2}$ -inch objective, the rest with a 1-inch.]